CALIFORNIA DIVISION OF MINES AND GEOLOGY

Supplement to FER-32 (Carpenteria Fault)

April 4, 1977

Introduction

U.S. Geological Survey photos (1947) GS-EM, flight 5, photos 1 through 5 were recently examined for evidence of fault-related, topographic features which may be associated with the Carpenteria fault. My observations are recorded on plate 2 in this report.

Discussion of Air Photo Evidence

The most obvious feature I observed on these photos is the trough located immediately west of U.S. Highway 101. This slightly curved depression opens on both ends. It is nearly 4500' long and 300' wide at its widest point. Within this trough is a 1000 foot long tonal lineation.

To the north of this trough is a 2200 foot long tonal lineation. This feature lines up quite well with an escarpment I noted on plate 1 (locality 1) in this report. However, this escarpment does not show up on these aerial photos and the tonal linear does not show up on the ground anymore. This leads me to conclude that the works of man have created these features (possibly by plowing) not movement along the Carpenteria fault.

Farther to the west in the City of Carpenteria an elliptical shaped, low knoll appears on the photos. This knoll is on strike with Carpenteria fault identified by Jennings and Troxel (1954) and Upson (1951) (see plate 1).

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SUPPL.

On the east side of U.S. Highway 101 the most striking feature noted on the photos is the sharp, right lateral, bend in Rincon Creek. A linear trough to the west of the creek and a weakly defined trough to the east line up nearly on trend with the bend in the creek. These features, in turn, line up with the northern edge of the curvilinear trough on the west side of U.S. Highway 101.

It is difficult to speculate on the origin of these features. The bend in the creek and the lineaments on the east and west side of the creek may be fault-related (right lateral, strike-slip type features). However, the curvilinear trough is possibly related to dune type topography. The surface of this terrace is composed of well-sorted (wind-blown?) sands. Further study in this area should include subsurface investigations along these features, especially the ones noted on the west side of the highway. If the Carpenteria fault is an active fault there should be some evidence on this terrace west of the highway.

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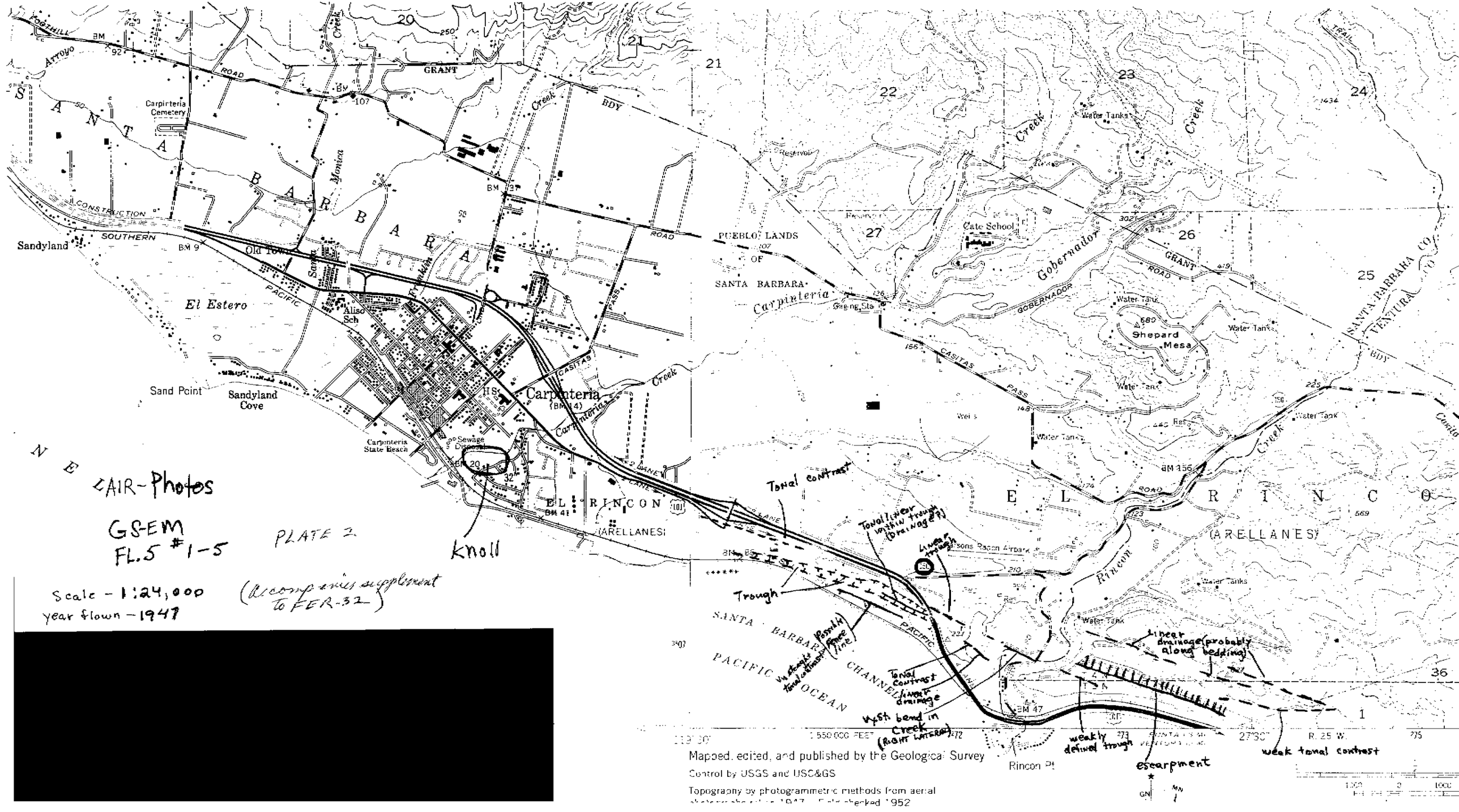

[redacted]

NE AIR-Photos

GS-EM
FL.5 #1-5

PLATE 2

Scale - 1:24,000
year flown - 1947

(Accompanies supplement to PER-32)